

interference to authorized radio communication services. This part sets forth the conditions under which the equipment in question may be operated.

**§ 18.103 Organization and applicability of the rules.**

The rules in this part are divided into the following subparts:

(a) Subpart A contains general information and definitions for use in this part.

(b) Subpart B describes the procedures and requirements for authorization to market or operate ISM equipment under this part.

(c) Subpart C contains the technical standards for ISM equipment.

**§ 18.105 Other applicable rules.**

Other Commission rule parts relating to the authorization and operation of ISM equipment include the following:

(a) Part 0 describes the Commission's organization and delegations of authority. This part also lists available Commission publications, standards and procedures for access to Commission records, and location of Commission field offices.

(b) Part 1 contains the rules of practice and procedure for adjudicatory proceedings including hearing proceedings; procedures for reconsideration and review of the Commission's actions; provisions concerning violation notices and for forfeiture proceedings; and the requirements for environmental impact statements.

(c) Part 2 contains special requirements in international regulations, agreements, treaties, and the table of frequency allocations. This part also contains requirements and procedures concerning the marketing, the equipment authorization, and the importation of radio frequency devices into the United States.

**§ 18.107 Definitions.**

(a) *Radio frequency (RF) energy.* Electromagnetic energy at any frequency in the radio spectrum from 9 kHz to 3 THz (3,000 GHz).

(b) *Harmful interference.* Interference which endangers the functioning of a radionavigation service or of other safety services or seriously degrades,

obstructs or repeatedly interrupts a radiocommunication service operating in accordance with this chapter.

(c) *Industrial, scientific, and medical (ISM) equipment.* Equipment or appliances designed to generate and use locally RF energy for industrial, scientific, medical, domestic or similar purposes, excluding applications in the field of telecommunication. Typical ISM applications are the production of physical, biological, or chemical effects such as heating, ionization of gases, mechanical vibrations, hair removal and acceleration of charged particles.

(d) *Industrial heating equipment.* A category of ISM equipment used for or in connection with industrial heating operations utilized in a manufacturing or production process.

(e) *Medical diathermy equipment.* A category of ISM equipment used for therapeutic purposes, not including surgical diathermy apparatus designed for intermittent operation with low power.

(f) *Ultrasonic equipment.* A category of ISM equipment in which the RF energy is used to excite or drive an electromechanical transducer for the production of sonic or ultrasonic mechanical energy for industrial, scientific, medical or other noncommunication purposes.

(g) *Consumer ISM equipment.* A category of ISM equipment used or intended to be used by the general public in a residential environment, notwithstanding use in other areas. Examples are domestic microwave ovens, jewelry cleaners for home use, ultrasonic humidifiers.

(h) *ISM frequency.* A frequency assigned by this part for the use of ISM equipment. A specified tolerance is associated with each ISM frequency. See § 18.301.

(i) *Marketing.* As used in this part, marketing shall include sale or lease, offer for sale or lease, advertising for sale or lease, the import or shipment or other distribution for the purpose of sale or lease or offer for sale or lease. See subpart I of part 2 of this chapter.

(j) *Magnetic resonance equipment.* A category of ISM equipment in which RF energy is used to create images and data representing spatially resolved

density of transient atomic resources within an object.

NOTE: In the foregoing, sale (or lease) shall mean sale (or lease) to the user or a vendor who in turn sells (or leases) to the user. Sale shall not be construed to apply to devices sold to a second party for manufacture or fabrication into a device which is subsequently sold (or leased) to the user.

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**§ 18.109 General technical requirements.**

ISM equipment shall be designed and constructed in accordance with good engineering practice with sufficient shielding and filtering to provide adequate suppression of emissions on frequencies outside the frequency bands specified in § 18.301.

**§ 18.111 General operating conditions.**

(a) Persons operating ISM equipment shall not be deemed to have any vested or recognizable right to the continued use of any given frequency, by virtue of any prior equipment authorization and/or compliance with the applicable rules.

(b) Subject to the exceptions in paragraphs (c) and (d) of this section and irrespective of whether the equipment otherwise complies with the rules in this part, the operator of ISM equipment that causes harmful interference to any authorized radio service shall promptly take whatever steps may be necessary to eliminate the interference.

(c) The provisions of paragraph (b) of this section shall not apply in the case of interference to an authorized radio station or a radiocommunication device operating in an ISM frequency band.

(d) The provisions of paragraph (b) of this section shall not apply in the case of interference to a receiver arising from direct intermediate frequency pickup by the receiver of the fundamental frequency emissions of ISM equipment operating in an ISM frequency band and otherwise complying with the requirements of this part.

**§ 18.113 Inspection by Commission representatives.**

Upon request by a representative of the Commission the manufacturer, owner, or operator of any ISM equipment shall make the equipment available for inspection and promptly furnish the Commission with such information as may be required to indicate that the equipment complies with this part.

**§ 18.115 Elimination and investigation of harmful interference.**

(a) The operator of ISM equipment that causes harmful interference to radio services shall promptly take appropriate measures to correct the problem.

(b) If the operator of ISM equipment is notified by the Commission's Engineer in Charge (EIC) that operation of such equipment is endangering the functioning of a radionavigation or safety service, the operator shall immediately cease operating the equipment. Operation may be resumed on a temporary basis only for the purpose of eliminating the harmful interference. Operation may be resumed on a regular basis only after the harmful interference has been eliminated and approval from the EIC obtained.

(c) When notified by the EIC that a particular installation is causing harmful interference, the operator or manufacturer shall arrange for an engineer skilled in techniques of interference measurement and control to make an investigation to ensure that the harmful interference has been eliminated. The EIC may require the engineer making the investigation to furnish proof of his or her qualifications.

**§ 18.117 Report of interference investigation.**

(a) An interim report on investigations and corrective measures taken pursuant to § 18.115 of this part shall be filed with the EIC of the local FCC office within 30 days of notification of harmful interference. The final report shall be filed with the EIC within 60 days of notification.

(b) The date for filing the final report may be extended by the Engineer in